



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/779,636	02/18/2004	Theodore R. Zeigler	000002-003	9100

44012 7590 04/30/2008
WRB-IP LLP
1217 KING STREET
ALEXANDRIA, VA 22314

EXAMINER

BARTOSIK, ANTHONY N

ART UNIT	PAPER NUMBER
----------	--------------

3635

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

04/30/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

HARRY@WRB-IP.COM
rosemary@wrb-ip.com

Office Action Summary	Application No. 10/779,636	Applicant(s) ZEIGLER, THEODORE R.	
	Examiner ANTHONY N. BARTOSIK	Art Unit 3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) 32 and 34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31, 33, & 35-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is a Second Action Non-Final rejection in response to the amendments that Applicant has provided.

Claim Objections

The Examiner notes Applicant's correction of claims 1 and 17 and removes the previous objection.

1. Claim 41 is objected to because of the following informalities: claim 41 depends from itself. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The Examiner notes Applicant's remarks regarding the previous rejection and agrees with Applicant thereby removing the 112 rejection from the First Action.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 5 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 5 sets forth at least one lateral scissor assembly being disposed at **each** end of **each** scissor assembly. As currently drafted there would need to be more than "at least one lateral scissor assembly." One is

needed to correspond with each of the plurality of scissor assemblies, resulting in more than just one. Since claim 5 would actually require more than one lateral assembly to function, it is indefinite to claim only at least one lateral scissor assembly.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-10, 12, 15, 18-19, 23, 25-26, 28-29, 33, and 35-37 are rejected under 35 U.S.C. 102(b) as being anticipated by Zeigler (US 5,444,946) (hereinafter “Zeigler ‘946”).

6. In Re claim 1, Figure 7 of Zeigler ‘946 discloses at least one scissor assembly (61) comprising a first (83) and a second (85) strut, the first (83) and the second (85) strut each having first and second ends and being pivotably attached (87) to each other such that the scissor assembly is movable between a folded position, in which the first end of the first strut (83) and the second end of the second strut (85) are substantially adjacent, and an expanded position;

a first spacer (95' & 95'') disposed between the first end of the first strut (83) and the first end of the second strut (85) when the scissor assembly is in the expanded position;

a second spacer (93' & 93'') disposed between the second end of the first strut (83) and the second end of the second strut (85) when the scissor assembly is in the expanded position; and

a tension member (223'') connected to the first (83) and second struts (85), wherein the tension member (223'') is arranged such that the scissor assembly is moved from the folded position when there is slack in the tension member (223'') to the expanded position when the slack in the tension member (223'') is taken up.

7. In Re claim 2, Figure 10E of Zeigler '946 discloses a plurality of scissor assemblies connected (61) end to end such that a second end of a second strut (85) and a second end of a first strut (83) of a first scissor assembly is pivotably connected to a first end of a first strut (83) and a first end of a second strut of a second scissor assembly, respectively, the second spacer (93' & 93'') for the first scissor assembly serving as the first spacer for the second scissor assembly.

8. In Re claim 3, Figure 10F of Zeigler '946 discloses the plurality of scissor assemblies (61) connected end to end defining a bank of scissor assemblies, the structure including at least two banks of scissor assemblies and at least one lateral scissor assembly including first and second struts pivotably connected at ends thereof to ends of the first and second struts of at least one scissor assembly of each of the banks of scissor assemblies.

9. In Re claim 4, Figure 10F of Zeigler '946 discloses at least two banks of scissor assemblies that are substantially identical.

10. In Re claim 5, Figure 10F of Zeigler '946 discloses at least one lateral scissor assembly that is disposed at each end of each scissor assembly.

11. In Re claim 6, Figures 7 and 10F of Zeigler '946 disclose the first and second struts of each lateral scissor assembly being pivotably connected to each other.

12. In Re claim 7, Figures 7 and 10F of Zeigler '946 disclose the first and second struts of each lateral scissor assembly being pivotably connected to each other at center points of the first and second struts.

13. In Re claim 8, 9, and 10, Col. 14 Lines 40-60 of Zeigler '946 disclose a cover disposed on at least one (and both) of an inner side (37) and an outer side (39) of the connected banks of scissor assemblies.

14. In Re claim 12, Figure 7 of Zeigler '946 discloses the first (83) and second (85) struts of at least one scissor assembly (61) of the plurality of scissor assemblies are pivotably connected to each other at centerpoints (87) of the first (83) and second (85) struts.

Art Unit: 3635

15. In Re claim 15, Figure 8A of Zeigler '946 discloses the first and second spacers each including tubular members.

16. In Re claim 18, Figure 8A of Zeigler '946 discloses the tubular members each include separable first (101) and second (103) halves, ends of the first (101) and second (103) halves abutting when the slack in the tension member (223") is taken up.

17. In Re claim 19, Col. 9 Lines 53-60 of Zeigler '946 disclose the tension member (223") being fixed (through the hub) at one end to an end of the at least one scissor assembly.

18. In Re claim 23, Figure 7 of Zeigler '946 discloses the tension member (223") extending from a first end of at least one of the first and second struts to a second end of the one of the first and second struts.

19. In Re claim 25, Figure 7 of Zeigler '946 discloses the tension member (223") extending from a first end of the first strut (83) to a second end of the first strut (83).

20. In Re claim 26, Figure 7 of Zeigler '946 discloses the tension member (223") extending from a first end of the second strut (85) to a second end of the second strut (85).

21. In Re claim 28, Figure 10E of Zeigler '946 discloses a plurality of scissor assemblies connected end to end such that a second end of a second strut and a second end of a first strut of a first scissor assembly is pivotably connected to a first end of a first strut and a first end of a second strut of a second scissor assembly, respectively, the plurality of connected scissor assemblies defining an arch shape when in the expanded condition.

22. In Re claim 29, Figure 10E of Zeigler '946 discloses the plurality of connected scissor assemblies includes a first end scissor assembly and a second end scissor assembly at opposite ends of the plurality of connected scissor assemblies, the arch being shaped such that the first ends of the first and second struts of the first end scissor assembly are substantially coplanar with the second ends of the first and second struts of the second end scissor assembly.

23. In Re claim 33, Figures 5, 7 and 10A-10F of Zeigler '946 disclose unfolding the structure to a collapsed condition, the structure including at least one scissor assembly (61) comprising a first (83) and a second strut (85), the first (83) and the second (83) strut each having first and second ends and being pivotably attached to each other such that the scissor assembly is movable between a folded position, in which the first end of the first strut and the second end of the second strut are substantially adjacent, and an expanded position; and

when the structure is in a collapsed condition, taking up slack in a tension member (223' & 233''), the tension member (223' & 223'') being connected to the first (83) and second struts (85) in such a manner that taking up slack draws the first ends of the first (83) and second (85) struts toward one another, and wherein slack in the tension member (223' & 223'') is taken up until the first ends of the first (83) and second struts (85) are separated by a distance defined by a spacer (93' & 93'').

The Examiner notes that in this claim as well as the others, the language used does not require that tension member be the sole device that erects the structure and by taking up the slack draws the struts towards each other. As currently drafted, moving other parts of the structure would take up the slack and bring the struts together.

24. In Re claim 35, Figures 7 and 10A-10F of Zeigler '946 disclose the slack in the tension member (223' & 223'') being taken up until the second ends of the first and second struts are separated by a distance defined by a second spacer.

25. In Re claim 36, the combination renders the claimed method steps obvious, since it would be a logical manner of setting up the structure.

26. In Re claim 37, Figures 7 and 10A-10F of Zeigler '946 disclose the plurality of scissor assemblies connected end to end defining a bank of scissor assemblies, the structure including at least two banks of scissor assemblies and at least one lateral strut

connecting the banks of scissor assemblies, the method including taking up slack in tension members corresponding to each bank of scissor assemblies.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 38-40 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zeigler (US 5,444,946).

3. In Re claim 38, Zeigler '946 discloses the claimed invention except for the specific manner in which the slack is taken up. Zeigler '946 renders the method steps obvious since employing the appropriate amount of individuals to assemble the tent would result in the slack in the tension members corresponding to each bank of scissor assemblies being taken up substantially simultaneously.

The Examiner notes that setting up the scissor assembly simultaneously would take up the slack at the same time.

4. In Re claim 39, Zeigler '946 discloses the claimed invention except for the specific manner in which the slack is taken up. Zeigler '946 renders the method steps

Art Unit: 3635

obvious since employing only one individual to assemble the tent would result in slack in the tension members corresponding to each bank of scissor assemblies is taken up at different times.

The Examiner notes that setting up the scissor assembly one section at a time would take up the slack at different times.

5. In Re claim 40, Zeigler '946 renders the claimed method steps obvious since such a method of assembly would be a logical manner of erecting the structure.

6. In Re claim 42, Zeigler '946 renders the claimed method steps obvious since such a method of assembly would be a logical manner of erecting the structure.

7. Claims 11 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zeigler (US 5,444,946) in view of Carter (US 5,632,293).

8. In Re claim 11, Zeigler '946 teaches the claimed invention except for the lateral scissor assembly having telescoping struts. Figure 10 of Carter teaches the use of a telescoping leg to expand the collapsible structure in a compact manner. Furthermore, it is well known to use telescoping members to allow for relatively small item to extend into a much larger size. It therefore, would have been obvious to one skilled in the art at the time of the invention to modify the lateral scissor assemblies' of Zeigler '946 to

Art Unit: 3635

include telescoping struts to allow for a larger structure without increasing the overall collapsed size.

9. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zeigler (US 5,444,946) in view of Zeigler (US 5,651,228) (hereinafter "Zeigler '228").

10. In Re claims 13 and 14, Zeigler '946 teaches the claimed invention except for connecting the struts at points offset from the center points. Figures 2A-2D and Col. 5 Lines 47-64 of Zeigler '228 teaches offsetting the connection points to make a curved structure. It would have been obvious to one skilled in the art at the time of the invention to offset the pivot point of the struts in Zeigler '946 as taught by Zeigler '228 in order to make the structure more adapted to form an arch.

11. Claims 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zeigler (US 5,444,946) in view of Zeigler (US 4,437,275) (hereinafter "Zeigler '275").

12. In Re claim 30, Zeigler '946 teaches the claimed invention except for the sliding scissor assembly. Figure 5 and Col. 10-25 of Zeigler '275 teaches the at least one scissor assembly including at least one sliding scissor assembly, first and second struts of the sliding scissor assembly being pivotably connected and slidable relative to one

Art Unit: 3635

another to enable heavy struts to collapse in the proper manner, where struts in the original configuration would not otherwise collapse. This would allow for a heavier strut to be used resulting in a stronger shelter. It would have been obvious to one skilled in the art at the time of the invention to modify the struts of Zeigler '946 to include the connection as taught in Zeigler '275 in order to allow a heavier strut to be used and a stronger shelter built.

13. In Re claim 31, Figure 5 of Zeigler '275 discloses at least one of the first and second struts of the at least one sliding scissor assembly includes a longitudinal groove, a pivot pin (102) extending through the longitudinal groove (98 or 100) pivotably and slidably connecting (92) the first and second struts of the at least one sliding scissor assembly.

Claim Rejections - 35 USC § 103

14. Claims 1, 15-17, and 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Esser et al. (US 5,943,837) in view of Zeigler (US 5,444,946).

15. In Re claim 1, Figure 8a Column 17 Lines 247-49 of Esser et al. discloses at least one scissor assembly comprising a first and a second strut (28), the first and the second strut (28) each having first and second ends and being pivotably attached to each other such that the scissor assembly is movable between a folded position in

which the first end of the first strut (28) and the second end of the second strut (28) are substantially adjacent and in an expanded position;

and a tension member (150) connected to the first and second struts (28), wherein the tension member is arranged such that the scissor assembly is moved from the folded position when there is slack in the tension member to the expanded position when the slack in the tension member is taken up.

The disclosure of Esser et al. mentions the use of a spacer between a first and second strut (Col. 1 Lines 31-39 & Col. 6 Lines 46-49). Esser et al., however, does not disclose a spacer used with the tension member as a complete structure.

A configuration of a first and second spacer is taught in Zeigler '946. Figures 13B and 13 C of Zeigler '946 teach a first spacer (95' & 95") disposed between the first end of the first strut (83) and the first end of the second strut (85) when the scissor assembly is in the expanded position; a second spacer (93' & 93") disposed between the second end of the first strut (83) and the second end of the second strut (85) when the scissor assembly is in the expanded position. The spacer of Zeigler '946 is used for the same purpose as the spacer of Esser et al., the differences being that the spacer of Zeigler '946 includes 2 separate elements allowing the spacers to remain attached to the hubs. It is clear that the disclosure of Esser et al. does not disclose the spacer used with the tension member. In reference to Col. 8 Lines 21-28:

cable 150 throughout the frame 26.

The cable 150 provides a more rigid quick erect shelter than a conventional shelter 20 utilizing stabilizing rods 34, thus allowing the cabled shelter to withstand even greater loads due to wind, snow, etc. Furthermore, by connecting the cable 150 at the position 151, there is provided additional shelter framework which can be used to form a ceiling in the shelter if required. When a ceiling is created utilizing the

Though Esser et al. sets forth the benefits of the tension member, stating that its capable of withstanding greater wind loads than a conventional shelter with stabilizing rods (spacer), it does not mention that the two are not capable of being used together.

An engineer having ordinary skill in the art using the disclosure of Esser et al. would appreciate the advantages of including both a tension member and a spacer to further the structural integrity of the tent. Furthermore, being that Esser et al. is a quick erect shelter, an engineer would want to maintain the ability to erect the shelter quickly. Placing the spacer in the tent individually would not provide for a quick set up, therefore, providing one of ordinary skill motivation to employ a spacer that would remain attached to and part of the tent's structure. In making the combination the examiner notes that if one were to bodily incorporate the spacer as taught in Zeigler '946 with the shelter of Esser et al. the combination would not function. Accordingly, the Examiner is simply using the teaching of the spacer in Zeigler '946 to be used with the hub of Esser et al. such that the two when placed together would be operable.

It therefore, would have been obvious to one skilled in the art at the time of the invention to modify the shelter of Esser et al. to encompass a spacer as taught by Zeigler '946 in order to make a stronger shelter.

16. In Re claim 15, Figure 8A of Zeigler '946 discloses the first and second spacers each including tubular members.

Art Unit: 3635

17. In Re claim 16, the combination of Esser et al. and Zeigler '946 as described above teaches using a spacer in connection with a pulley system for further structural integrity. In doing so an engineer having the ordinary skill in the art would appreciate that including the spacer and pulley system into one unit, and placing the tension member through the spacer, would result in a compact easier to use shelter. Therefore, it would have been obvious to one skilled in the art at the time of the invention to place the tension member within the spacer to effectuate a compact system.

18. In Re claim 17, the combination of Esser et al. and Zeigler '946 as described in the reasoning above teaches the tension member extending through the first and second spacers from a first end of each spacer to a second end of each spacer.

19. In Re claims 23, Figure 8b of Esser et al. discloses the tension member extending from a first end of at least one of the first and second struts (28) to a second end of the one of the first and second struts (28).

20. In Re claim 24, Figure 8d of Esser et al. discloses at least one pulley (152) disposed at at least one of the first and second ends of at least one of the first and second struts, the tension (150) member extending around the pulley (152).

21. In Re claims 25, Figure 8a of Esser et al. discloses the tension member (150) extending from a first end of the first strut to a second end of the first strut.

22. In Re claim 26, Figure 8a of Esser et al. discloses the tension member (150) extending from a first end of the second strut to a second end of the second strut.

23. In Re claim 27, Figures 8a-8d of Esser et al. disclose at least one pulley (152) disposed at at least one of the first and second ends of at least one of the first and second struts, the tension member (150) extending around the pulley (152).

24. Claims 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Esser et al. (US 5,943,837) and Zeigler (US 5,444,946) as applied to claim 1 above, and further in view of Russell et al. (US 4,325,207).

25. In Re claim 19, the above combination teaches the claimed invention except for fixing the tension member at one end. Col. 2 Lines 53-60 of Russell et al. teach the tension member being fixed at one end to an end of the assembly in order to draw up the assembly into the arch shape. Col. 3 Lines 22-34 of Russell et al. further teaches using a reel (32) on the other side to take up slack drawing the assembly towards itself. Using the teaching in Russell et al. to attach the line at one end it would have been obvious to one skilled in the art at the time of the invention to separate the two ends of the tension member in Esser et al. and fix one end at one side and fix the other side to a reel. This would enable the roof to be placed at a much higher level, fully utilizing the arch structure. It therefore, would have been obvious to one skilled in the art at the time of the invention to modify the Esser et al. and Zeigler '946 combination to fix the

Art Unit: 3635

tension member at one end as taught in Russell et al. in order to allow for greater use of the space within the shelter.

26. In Re claim 20, the above combination discloses a reel secured at an opposite end of the tension member, the reel being adapted to take up and release slack in the tension member.

27. In Re claim 21, Col. Line 31 of Russell et al. discloses a motor for operating the reel.

28. In Re claim 22, the combination of Esser et al., Zeigler '946 and Russell et al. disclose a reel secured at at least one end of the tension member, the reel being adapted to take up and release slack in the tension member.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTHONY N. BARTOSIK whose telephone number is (571)270-3112. The examiner can normally be reached on M-F 7:30-5:00; E.D.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on 571-272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Richard E. Chilcot/
Supervisory Patent Examiner, Art
Unit 3635

/A. N. B./
Examiner, Art Unit 3635